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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 09/738,243 | 12/15/2000 | Lok Yan Leung | AUS920000814US1 | 2747 |
| 35525 | 7590 | 07/02/2004 | EXAMINER | |
| IBM CORP (YA) | | | COLIN, CARL G | |
| C/O YEE & ASSOCIATES PC | | | ART UNIT | |
| P.O. BOX 802333 | | | PAPER NUMBER | |
| DALLAS, TX 75380 | | | 2136 | |

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 09/738,243 | Applicant(s) LEUNG ET AL. | |
| | Examiner Carl Colin | Art Unit 2136 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>03/26/01</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

1. Pursuant to USC 131, claims 1-46 are presented for examination.

Specification

2. The use of the trademark JAVA has been noted in this application on page 8. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. **Claims 1, 20, 26, and 45** are objected to because of the following informalities: the phrase "a available resources" needs to be corrected. Appropriate correction is required.

- 3.1 **Claims 19 and 44** are objected to because of the following informalities: "the identified" lacks antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.1 **Claims 1-2, 4-9, 11-27, 29-34, 36-46** are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,612,682 to **DeLuca et al.**.

3.2 **As per claims 1, 11, 20-24, 25, 26, 36, 45, and 46, DeLuca et al.** discloses a method and system (see figure 3) in a data processing system for executing cryptographic operations comprising: a bus system; a communications unit connected to the bus, wherein data is sent and received using the communications unit; a memory connected to the bus system, wherein a set of instructions are located in the memory; and a processor unit connected to the bus system, wherein the processor unit executes the set of instructions; wherein the bus system includes a primary bus and a secondary bus (see figure 3); wherein the processor unit includes a processor or a plurality of processors, wherein the communications unit is an Ethernet adapter, for example (see column 4, lines 4-26); responsive to a request to perform a cryptographic operation, selecting one of a software process and a hardware process for performing the cryptographic operation based on a policy which process results in a available resources to perform the cryptographic operation to form a selected process, for example (see column 1, line 44 through column 2, line 40); and performing the cryptographic operation using the selected process, for example (see column 9, line 38 through column 10, line 15).

As per claims 2, 19, 27 and 44, DeLuca et al. discloses the limitation of wherein the policy includes selecting the one based on available resources to perform the cryptographic operation, wherein the identified available resources include available processing resources and memory, for example (see column 9, line 38 through column 10, line 15 and column 6, lines 19-25).

As per claims 4 and 29, DeLuca et al. discloses the limitation of wherein the selecting step includes: selecting the one using a preference associated with the request, for example (see column 10, lines 55-67).

As per claims 5 and 30, DeLuca et al. discloses the limitation of wherein the preference is for the hardware process to performing the cryptographic operation, for example (see column 10, lines 55-67).

As per claims 6, 15, 31, and 40, DeLuca et al. discloses the limitation of wherein the cryptographic operation is an encryption of data using a key, for example (see column 9, line 38 through column 10, line 15).

As per claims 7, 16, 32, and 41, DeLuca et al. discloses the limitation of wherein the step of performing the cryptographic operation includes converting the key to a form useable by the selected process if the key is in a different form, for example (see column 10, lines 1-15 and lines 55-67).

As per claims 8, 17, 33, and 42, DeLuca et al. discloses the limitation of wherein the key is a hardware key and the selected process is the software process and further comprising: converting the hardware key into a software form useable by the software process, for example (see column 10, lines 1-15 and lines 55-67).

As per claims 9 and 34, DeLuca et al. discloses the limitation of wherein the policy comprises a set of rules used to minimize available resources consumed in performing the cryptographic operation, for example (see column 14, lines 1-25 and column 15, line 55-65).

As per claims 12 and 37, DeLuca et al. discloses the limitation of wherein the cryptographic operation is one of a message digest and a public-private key encryption, for example (see column 5, lines 5-45).

As per claims 13, 14, 38 and 39, DeLuca et al. discloses the limitation of wherein the request is received from the application using an application program interface call made by the application, for example (see column 5, line 65 through column 6, line 15 et seq.).

As per claims 18 and 43, DeLuca et al. discloses the limitation of, wherein the key is a software key and the selected process is the hardware process and further comprising: converting the software key into a hardware form, for example (see column 10, lines 1-15 and lines 55-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.1 **Claims 3, 10, 28, and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,612,682 to **DeLuca et al.** in view of US Patent 5,835,600 to **Rivest**.

4.2 **As per claims 3, 10, 28, and 35 DeLuca et al.** substantially teaches a method and system for executing cryptographic operations, comprising a policy rule. **DeLuca et al.** does not explicitly teach that one of the policies is based on the speed at which the cryptographic operation is performed. However, **Rivest** in an analogous art teaches selecting one of a hardware or software process so that the speed can be balanced with the security requirement, for example (see column 2, lines 4-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **DeLuca et al.** to provide a policy based on maximizing speed depending on the security requirement, as taught by **Rivest**. This modification would have been obvious because one skilled in the art would have been motivated

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by the suggestions provided by **Rivest** to choose a selected process to suit the security and speed requirements of a particular cryptographic operation (see column 2, lines 4-37).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as the art discloses processing system of selecting one of hardware and software process associated with a policy.

| | | |
|-------------|-----------|---------------|
| US Patents: | 6,672,505 | Steinmetz |
| | 6,671,809 | Perona et al. |

5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 703-305-0355. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cc

Carl Colin
Patent Examiner

June 25, 2004


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100